



USSTRATCOM MODELING & SIMULATION OVERVIEW

Eighth Annual State of Modeling & Simulation
Briefing to Government and Industry

UNCLASSIFIED



AGENDA

- USSTRATCOM mission and roles
- M&S Components
- M&S Current Technologies
- M&S Future Directions

THE MISSION OF STRATEGIC COMMAND

**Deter major military attack on the
United States and its allies; and if
deterrence fails, employ forces**

UNITED STATES STRATEGIC COMMAND

A War Preventer

- Deter major military attack, and if deterrence fails, employ forces

A Planner

- Integrate strategic deterrence policies and requirements, thereby linking planning and execution. Provide planning support to regional CINCs

An Advocate

- Primary voice for strategic force structure, modernization, and arms control implications

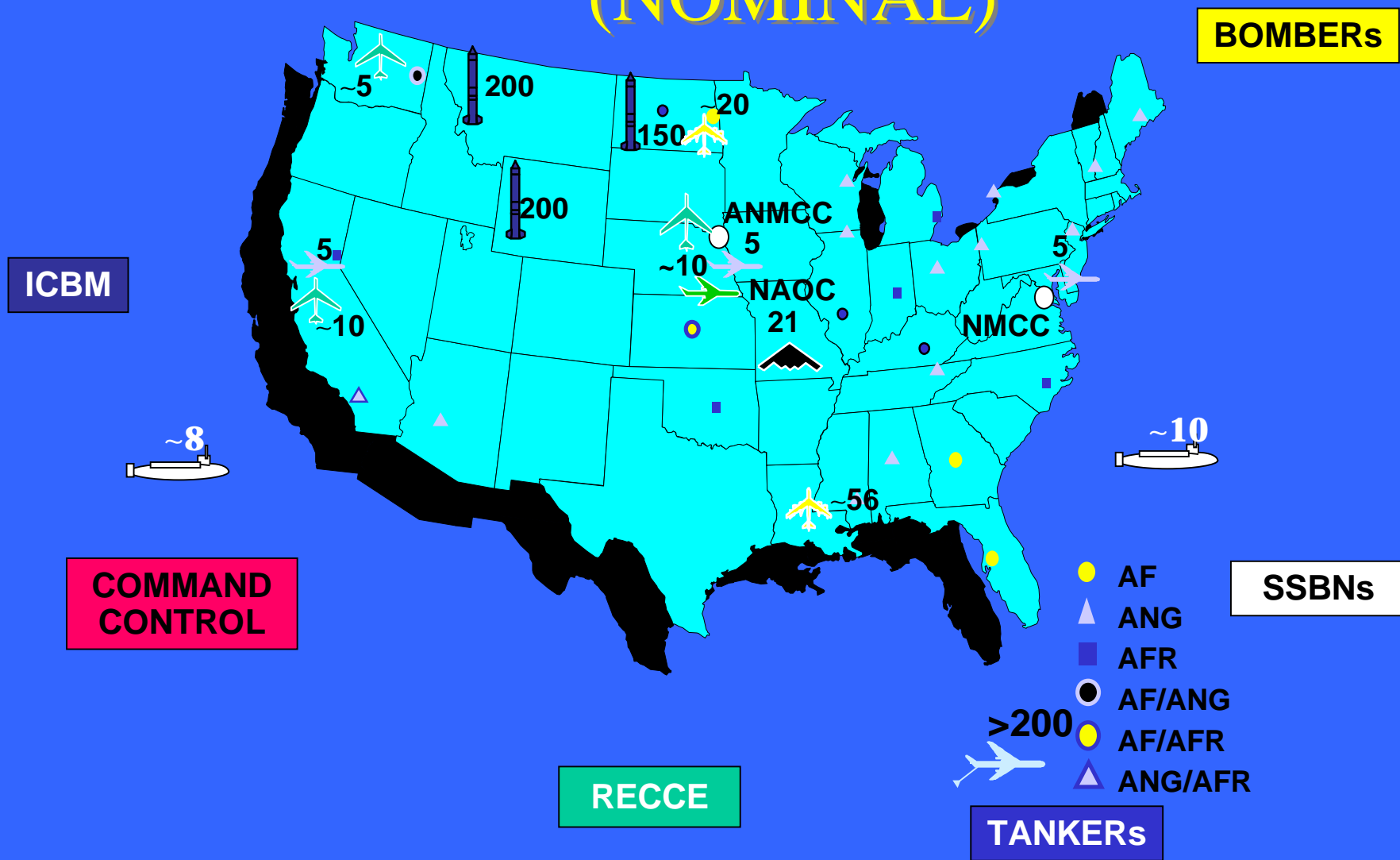


COMMAND RELATIONSHIPS WARTIME FORCES





STRATEGIC COMMAND FORCES WARTIME POSTURE (NOMINAL)





POST COLD WAR CHALLENGES

Turmoil in FSU

Arms Control



Strategic Deterrence

WMD Counter Proliferation

Nuclear Stockpile
Stewardship

Strategic Force
Modernization

Hard and Deeply Buried
Target Proliferation



U. S. STRATEGIC COMMAND M & S MAJOR COMPONENTS



**Strategic
Systems**

**WMD /
Counterproliferation**

**Consequences
of Execution**





CURRENT TECHNOLOGIES

For Distributed Collaborative Planning/Analysis (DCP/A):

- Theater Integrated Planning System (TIPS)
- Common Operational Modeling, Planning, and Simulation Strategy (COMPASS)
- Collaborative Contingency Targeting (CCT)





CURRENT TECHNOLOGIES

(CONT)

For Counterproliferation/Proliferation Path/Nodal Analysis:

- Counterproliferation Analysis and Planning System (CAPS)



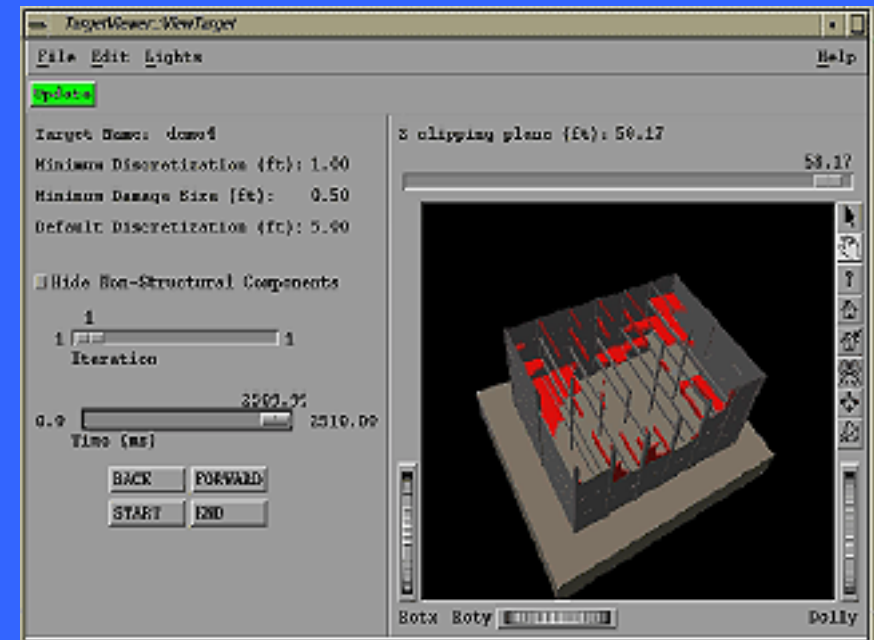


CURRENT TECHNOLOGIES

(CONT)

For weapon lethality/target vulnerability analysis:

- Air Force Research Lab's Modular Effectiveness Vulnerability Assessment (MEVA) - a deliberate planning tool
- Defense Threat Reduction Agency's Munitions Effects Assessment (MEA) - a crisis action planning tool
- Probability of Damage Calculator (PDCALC)



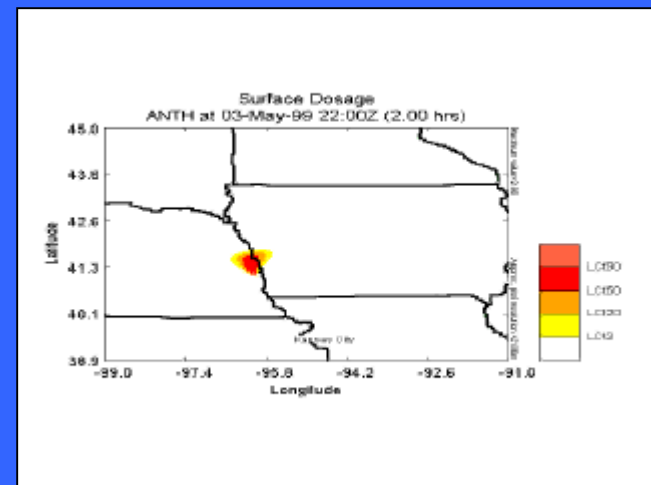


CURRENT TECHNOLOGIES

(CONT)

For Consequence Analysis:

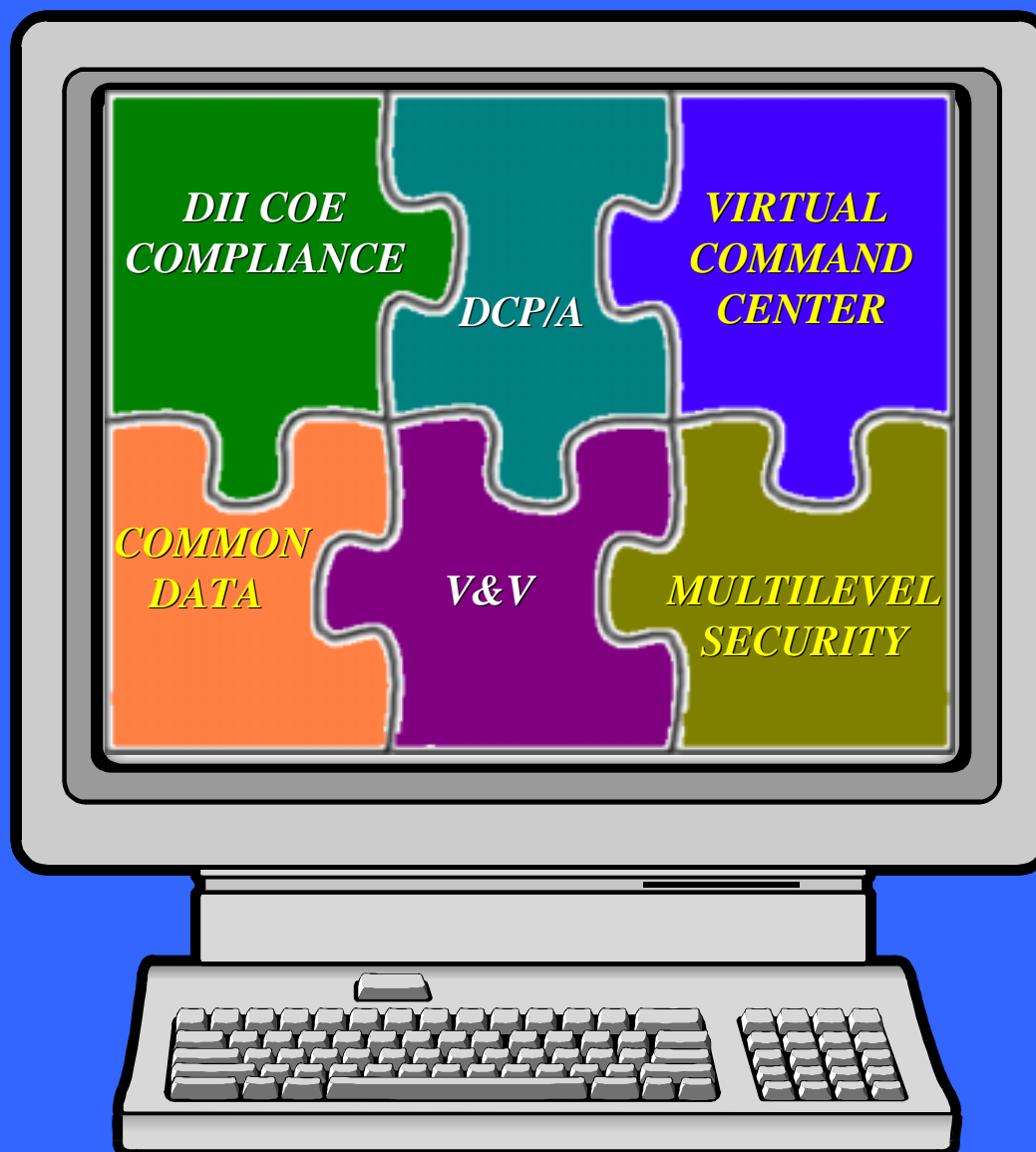
- Hazard Prediction Assessment Capability & Fallout Assessment System/Civilian Vulnerability Indicator Code (HPAC & FAS/CIVIC)
 - Nuclear & conventional weapons on NBC facilities
 - Atmospheric transport and dispersion
 - Casualty prediction



Anthrax Dispersion in HPAC



MISSION ENVIRONMENT





FUTURE DIRECTIONS

Increased fidelity in modeling:

- Atmospheric transport & dispersion
 - More accurate incorporation of meteorology
- Relocatable targets
- Underground targets in hardened geologies
- Population distribution

New Areas:

- Strategic Exercise Simulation
- Information operations analysis
- Atmospheric transport and dispersion in urban terrain
- Secondary Nuclear Effects

